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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,348	03/16/2001	Tom Marttila	6009-4601 US	7865

7590

05/20/2004

Morgan & Finnegan
345 Park Avenue
New York, NY 10154

EXAMINER

HAMILTON, ISAAC N

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 05/20/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/787,348

Applicant(s)

MARTTILA, TOM

Examiner

Isaac N Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7 and 9-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-3,5-7,9,10,18,20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-17,19 and 22-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Rejections made under 35 USC 112 are hereby withdrawn in light of the amendment filed 02/11/2004.

Claim Rejections - 35 USC § 103

2. Claims 12, 13, 19, 22, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schulke et al (4,606,804), hereafter Schulke, in view of Kvavle (4,901,906). Schulke discloses a method of manufacturing a suspension bar 20; steel outer jacket tube 16; copper or aluminum core 15; machining the outer jacket in column 3, lines 54-64. Schulke does not disclose casting the core in molten form. However, Kvavle teaches casting the core in molten form in column 6, lines 64-68. It would have been obvious to provide casting the core in molten form in Schulke as taught by Kvavle in order to provide a method of producing a composite metal article with an improved metallurgical bond between an inner core metal and an outer metal shell. Note column 2, lines 22-30 in Kvavle. Note heating of outer jacket tube and the core after casting in column 4, line 43-56. Regarding claim 12, note that the molten core and the outer jacket tube are in an enclosure 10 that has an argon atmosphere during casting, which implies that the core and jacket tube are being heated during casting due to the high temperatures of the enclosure.
3. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Schulke and Kvavle as applied to claims 19, 22, 23 above, and further in view of Golz (4,733,849). The combination discloses everything as noted above, but does not disclose

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graphite. Golz teaches graphite in column 1, lines 20-30. It would have been obvious to provide graphite in the combination as taught by Golz in order to provide a mold release or parting agent.

4. Claims 14, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Schulke and Kvavle as applied to claims 19, 22, 23 above, and further in view of Willingham (3,648,757). The combination discloses everything as noted above, but does not disclose an inclined position, and does not disclose a hole in the upper side of the outer jacket tube. Willingham teaches inclined position in figure 4 and hole in figure 4 in which the molten material is being poured. It would have been obvious to provide an inclined position and a hole in the upper side of the outer jacket in the combination as taught by Golz in order to provide a simple and effective way of filling the outer jacket tube using the force of gravity. Note that a vertical position is also an inclined position at an angle of inclination equal to 90 degrees.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Schulke and Kvavle as applied to claims 19, 22, 23 above, and further in view of Kawahara et al (JP58038654A), hereafter Kawahara. The combination discloses everything as noted above, but does not disclose preheating the jacket. Kawahara teaches preheating in the English abstract. It would have been obvious to provide preheating in the combination as taught by Kawahara in order to cast composite member under optimum conditions with easy work.

6. Claims 15, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Schulke and Kvavle as applied to claims 19, 22, 23 above, and further in view of Dwivedi (5,005,631). The combination discloses everything as noted above, but does not disclose immersing the jacket into a melt of the core, and does not disclose immersing the jacket into a melt in a vertical position. Dwivedi teaches immersing the jacket into a melt of the core in

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figures 1-4, and teaches immersing the jacket into a melt in a vertical position in figures 1-2. It would have been obvious to provide immersing the jacket into a melt of the core and immersing the jacket into a melt in a vertical position in order to prevent large, clumped impurities from being cast in the jacket. Regarding claim 16, figure 3 in Dwivedi is interpreted to be in a horizontal position due to the unsymmetrical shape of container 22, 26, 25.

Response to Arguments

Applicant's arguments with respect to claims 11-17, 19, 22-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sakai is cited for preheating; Levin is cited for similar structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isaac Hamilton whose telephone number is 703-305-4949. The examiner can normally be reached on Monday thru Friday between 8am and 5pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9306. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

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May 17, 2004

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Allan N. Shoap
Supervisory Patent Examiner
Group 3700